Health Care Financing

RESEARCH BRIEF

These brief reports from the Office of Research, Office of Research and Demonstrations, provide Medicare and Medicaid program information on current health care issues.

They are based on data from the Medicare statistical files developed and maintained by the Bureau of Data Management and Strategy, Health Care Financing Administration

REPORTS
RA
412
.3
H4286
no.87-1

Health Care Financing Administration
Office of Research and Demonstrations

This report is considered a working document for internal distribution. It has not been cleared and is not intended as an official publication.

RA
412.3
.H4286
no.87-1

Research Brief No. 87 - 1
Medicare: Inpatient Use of Short-Stay Hospital Services by Beneficiaries With a Diagnosis of Diabetes Mellitus, 1984

Medicare: Inpatient Use of Short-Stay Hospital Services by Beneficiaries With a Diagnosis of Diabetes Mellitus, 1984

Diabetes is a major national health care problem in the United States. Based on information obtained from the 1982 National Health Interview Survey (NHIS), there were an estimated 5.8 million people in the civilian noninstitutionalized population of the United States with known diabetes. Furthermore, it is estimated that a comparable number of Americans have diabetes but are not aware that they have the condition. Known diabetes, according to the NHIS survey, is relatively more common among older people, females, black people, the less educated, and those with low family incomes. Diabetes is one of the leading causes of death in the United States.

Diabetes is a "genetically and clinically heterogeneous group of disorders that share glucose intolerance in common" (as referred by National Diabetes Data Group: Diabetes. Vol. 28, No. 12, p. 1039. Dec. 1979). This Research Brief refers specifically to diabetes mellitus, a metabolic disorder in which there is inadequate secretion or utilization of insulin for normal metabolism of glucose. Without insulin, sugar builds up in the blood and urine, causing such symptoms as thirst, loss of weight, and the excessive production of urine.

Insulin dependent diabetes (Type I) is the most serious form of diabetes and almost always requires insulin therapy to treat the condition. Most persons with Type I diabetes incur severe long-term complications including blindness, limb amputation, kidney failure, and heart disease. In the majority of people with diabetes, however, the disease appears at an older age. Noninsulin dependent diabetes (Type II) is milder and normally controlled with oral medications, diet, exercise, and weight reduction.

Although there is no recognized cure for diabetes, the prognosis for this disease has improved dramatically in recent years. Based on highly promising research studies, scientists are using immunotherapy in an attempt to prevent the development of diabetes in people who have a high risk of getting the disease. The key to this new optimism is threefold: the realization that diabetes is an autoimmune disease in which the body mistakenly attacks itself; the great advances in the organ transplantation of insulin making cells; and the development of the wonder drug cyclosporine, which has opened the door to widespread organ transplants.

Diabetes is a major contributor to the use of short-stay hospital inpatient services. Among aged Medicare beneficiaries, diabetes was the tenth most frequently reported principal diagnosis for patients discharged from participating short-stay hospitals in 1984; among disabled beneficiaries, diabetes ranked third.

This Brief focuses on program data and analytical highlights for aged and disabled Medicare beneficiaries discharged from short-stay hospitals during 1984 with the principal diagnosis of diabetes. The data are classified by demographic (Table 1) and geographic characteristics (Tables 2 and 3) of the diabetic inpatients. Data are also shown reflecting the use of short-stay hospital inpatient services by beneficiaries with either a principal or secondary diagnosis of diabetes (Table 4). These data are included because of the many hospitalizations related to or directly resulting from diabetes (e.g., diseases of the heart, kidney, eye, and peripheral vascular diseases).

This Research Brief was prepared in the Division of Program Studies of the Office of Research. For additional information or for suggestions regarding future topics, please call Charles Helbing at (301) 597-1420.

Selected Data Highlights

Table 1 - Demographic Characteristics, 1984

Aged beneficiaries

- Aged Medicare beneficiaries discharged from inpatient short-stay hospitals with the principal diagnosis of diabetes accounted for an estimated 143.5 thousand discharges (about 1.5 percent of all aged short-stay hospital discharges) and were rendered services amounting to $612.8 million (about 1.3 percent of all aged short-stay hospital charges).

- The average total charge per discharge for aged diabetics rendered short-stay hospital inpatient services was $4,271. For all aged beneficiaries discharged from short-stay hospitals, the average charge per discharge was $4,849 (data not shown in Table 1).

- Aged diabetics accounted for 1.46 million days of inpatient care, or an average length of stay (ALOS) of 10.1 days per discharge. For all aged inpatient discharges, the ALOS was 8.8 days.

- The annual discharge rate for aged beneficiaries with diabetes was 5.3 discharges per 1,000 enrollees.

- Among aged diabetics, the annual discharge rate per 1,000 enrollees was higher for females (5.8) than males (4.6), was substantially higher for people of all other races (9.5) than white people (4.9), and rose slightly with age (except for the oldest age groups).

- The ALOS per discharge for aged diabetics was slightly longer for males (10.5 days) than for females (10.0 days), was longer for people of all other races (11.1 days) than for white people (9.9 days), and increasingly longer for older age groups.

Disabled beneficiaries

- Disabled diabetics accounted for approximately 32.1 thousand discharges (about 2.7 percent of all disabled short-stay hospital discharges) and received services amounting to $148.1 million in total charges (about 2.5 percent of all short-stay hospital charges for disabled beneficiaries) under the Medicare program.

- The average total charge per discharge for disabled beneficiaries with the principal diagnosis of diabetes was $4,613, about 8 percent more than that for aged diabetics ($4,271). For all disabled beneficiaries discharged from short-stay hospitals, the average charge per discharge was $5,008 (data not shown in Table 1).

- Among disabled beneficiaries, diabetes was the third most frequently reported principal diagnosis. The annual discharge rate was 11.1 discharges per 1,000 enrollees, which was more than double the comparable rate for the aged.

- Disabled beneficiaries used 310.3 thousand days of care, or an average of 9.7 days per discharge. Their ALOS was 0.4 days shorter than that for aged diabetic beneficiaries (10.1 days) and 1.0 days longer than that for all disabled discharges (8.7 days).

- The annual discharge rate per 1,000 enrollees for disabled diabetics rose moderately with advancing age (except for the 60-64 age group), was much higher (60 percent) for females (14.6) than for males (9.1), and was substantially higher (46 percent) for people of all other races (15.0) than for white people (10.3).

- Among the disabled with diabetes, the ALOS per discharge increased with age, was slightly longer for females (9.9 days) than for males (9.5 days), and was slightly longer for people of all other races (9.9 days) than for white people (9.6 days).

Table 2 - (Figure 1) Aged beneficiaries, geographic area, 1984

- Among the regions, the rate of hospitalization for aged beneficiaries with the principal diagnosis of diabetes was similar (5.7 discharges per 1,000 enrollees), with one major exception. The discharge rate in the West region (3.5 discharges per 1,000 enrollees) was substantially lower (63 percent) than for the other regions.

- By State, the annual discharge rate per 1,000 enrollees ranged from 2.6 in Hawaii to 7.9 in Mississippi, a difference of 204 percent.

- The ALOS per discharge for aged diabetics varied slightly among the regions, with one major exception. The ALOS in the Northeast region (13.7 days) was much longer (36 percent) than the average for all areas (10.1 days).

- By State, the ALOS per discharge varied substantially, ranging from 5.6 days in Idaho to 18.1 days in Hawaii, a difference of 223 percent.

- The average total charge per discharge varied among the regions, ranging from $3,556 in the South to $5,426 in the Northeast, a difference of 53 percent.

- By State, the total average charge per discharge ranged considerably from a low of $2,012 in Wyoming to a high of $9,015 in Hawaii, a difference of 348 percent.

TABLE 1

Use and Cost of Short-Stay Hospital Services by Medicare Beneficiaries with the Principal Diagnosis of Diabetes: Demographic Characteristics, 1984

Demographic Characteristics	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
Aged beneficiaries										
Total	143,495	5.3	1,455,455	10.1	$612,799	$4,271	$421	$602,222	$4,197	$414
Age										
65-69	41,610	4.8	399,365	9.6	170,106	4,088	426	166,668	4,005	417
70-74	39,725	5.6	394,085	9.9	167,853	4,225	426	165,576	4,168	420
75-79	30,785	5.9	317,495	10.3	135,022	4,386	425	132,992	4,320	419
80-84	19,335	5.8	206,250	10.7	84,043	4,347	407	82,546	4,269	400
85 or Over	12,040	4.3	138,260	11.5	55,775	4,632	403	54,440	4,522	394
Sex										
Males	50,095	4.6	524,820	10.5	232,442	4,640	443	228,636	4,564	436
Females	93,400	5.8	930,635	10.0	380,357	4,072	409	373,586	4,000	401
Race 1/										
White	116,440	4.9	1,157,845	9.9	474,994	4,079	410	466,705	4,008	403
All Other	22,635	9.5	251,710	11.1	118,194	5,222	470	116,059	5,127	461
Disabled beneficiaries										
Total	32,105	11.1	310,270	9.7	$148,095	$4,613	$477	$144,257	$4,493	$465
Age										
Under 35	3,320	8.6	26,430	8.0	16,137	4,861	611	15,039	4,530	569
35-44	4,310	10.2	40,735	9.5	21,503	4,989	528	20,408	4,735	501
45-54	6,835	11.7	63,385	9.3	30,419	4,450	480	29,996	4,389	473
55-59	7,380	12.7	73,490	10.0	33,588	4,551	457	32,981	4,469	449
60-64	10,260	11.3	106,230	10.4	46,447	4,527	437	45,832	4,467	431
Sex										
Males	16,685	9.1	158,225	9.5	78,508	4,705	496	76,791	4,602	485
Females	15,420	14.6	152,045	9.9	69,587	4,513	458	67,465	4,375	444
Race 1/										
White	24,030	10.3	229,910	9.6	110,521	4,599	481	107,129	4,458	466
All Other	7,515	15.0	74,375	9.9	34,331	4,568	462	33,910	4,512	456

1/ Excludes unknown race.

TABLE 2
Use and Cost of Short-Stay Hospital Services by Aged Medicare Beneficiaries with the Principal Diagnosis of Diabetes: Geographic Area, 1984

Geographic Area	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
All Areas	143,495	5.3	1,455,455	10.1	$612,799	$4,271	$421	$602,222	$4,197	$414
United States 1/	141,530	5.3	1,437,835	10.2	608,469	4,299	423	597,932	4,225	416
Northeast	35,340	5.7	482,615	13.7	191,744	5,426	397	185,667	5,254	385
North Central	40,090	5.7	375,185	9.4	158,140	3,945	421	155,901	3,889	416
South	49,760	5.7	445,565	9.0	176,962	3,556	397	175,334	3,524	394
West	16,340	3.5	134,470	8.2	81,624	4,995	607	81,030	4,959	603
New England	8,405	5.3	106,500	12.7	40,407	4,808	379	39,452	4,694	370
Connecticut	1,835	4.7	20,395	11.1	8,402	4,579	412	8,304	4,526	407
Maine	805	5.4	8,250	10.2	3,143	3,904	381	3,022	3,755	366
Massachusetts	4,480	6.0	61,995	13.8	23,418	5,227	378	22,773	5,083	367
New Hampshire	470	4.2	5,480	11.7	2,094	4,455	382	2,072	4,408	378
Rhode Island	575	4.4	7,200	12.5	2,469	4,294	343	2,438	4,239	339
Vermont	240	3.9	3,180	13.3	882	3,675	277	843	3,513	265
Middle Atlantic	26,935	5.8	376,115	14.0	151,336	5,619	402	146,215	5,428	389
New Jersey	5,045	5.6	74,740	14.8	27,205	5,392	364	25,921	5,138	347
New York	11,530	5.4	188,795	16.4	70,822	6,142	375	67,284	5,836	356
Pennsylvania	10,360	6.4	112,580	10.9	53,309	5,146	474	53,010	5,117	471
East North Central	27,745	5.9	268,975	9.7	116,711	4,207	434	116,092	4,184	432
Illinois	7,245	5.6	75,855	10.5	36,621	5,055	483	36,377	5,021	480
Indiana	4,545	7.4	42,410	9.3	13,803	3,037	325	13,707	3,016	323
Michigan	6,690	6.8	63,560	9.5	30,366	4,539	478	30,249	4,522	476
Ohio	6,685	5.4	65,270	9.8	27,944	4,180	428	27,803	4,159	426
Wisconsin	2,580	4.3	21,880	8.5	7,977	3,092	365	7,957	3,084	364
West North Central	12,345	5.5	106,210	8.6	41,428	3,356	390	39,809	3,225	375
Iowa	2,285	5.7	18,875	8.3	6,952	3,042	368	6,869	3,006	364
Kansas	1,595	5.1	16,655	10.4	6,656	4,173	400	5,316	3,333	319
Minnesota	2,130	4.2	17,490	8.2	7,429	3,488	425	7,348	3,450	420
Missouri	4,020	6.1	34,540	8.6	13,803	3,434	400	13,734	3,416	398
Nebraska	1,155	5.5	10,010	8.7	3,667	3,175	366	3,646	3,157	364
North Dakota	590	6.9	3,940	6.7	1,336	2,264	339	1,314	2,227	333
South Dakota	570	6.0	4,700	8.2	1,586	2,782	337	1,581	2,773	336
South Atlantic	22,750	5.0	213,215	9.4	86,540	3,804	406	85,901	3,776	403
Delaware	210	3.2	2,605	12.4	1,011	4,815	388	960	4,573	369
Dist. of Columbia	455	6.9	6,275	13.8	3,421	7,519	545	3,406	7,486	543
Florida	7,530	4.3	68,050	9.0	32,742	4,348	481	32,513	4,318	478
Georgia	3,180	5.9	26,720	8.4	11,231	3,532	420	11,141	3,503	417
Maryland	2,180	5.1	25,285	11.9	9,154	4,298	362	9,100	4,272	360
North Carolina	2,745	4.2	23,880	8.7	7,515	2,738	315	7,481	2,725	313
South Carolina	1,890	6.1	17,535	9.3	5,602	2,964	319	5,570	2,947	318
Virginia	2,755	5.1	26,325	9.6	9,542	3,464	362	9,473	3,438	360
West Virginia	1,855	7.7	16,540	8.9	6,321	3,408	382	6,257	3,373	378

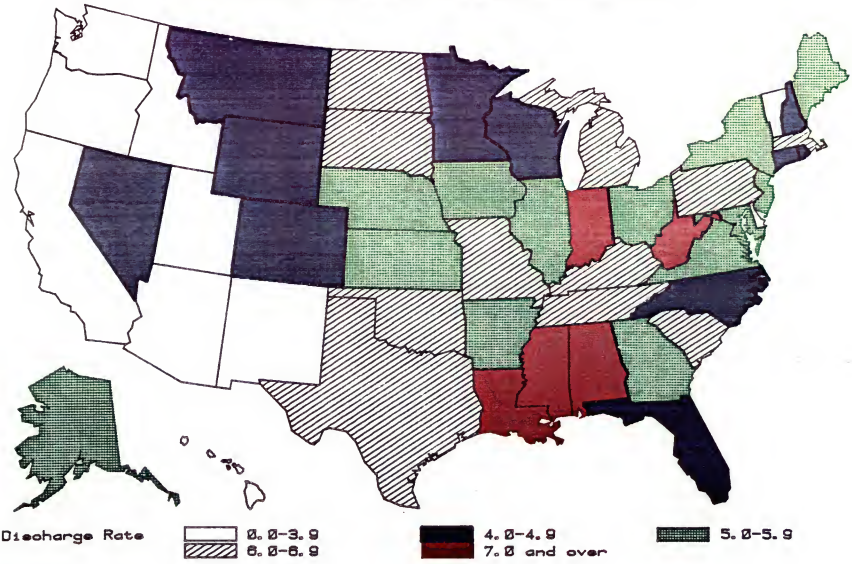
See footnote at end of table

TABLE 2 (Continued)
Use and Cost of Short-Stay Hospital Services by Aged Medicare Beneficiaries
with the Principal Diagnosis of Diabetes: Geographic Area, 1984

Geographic Area	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
East South Central	11,770	7.0	99,850	8.5	37,032	3,146	371	36,543	3,105	366
Alabama	3,140	7.0	26,815	8.5	11,178	3,560	417	11,098	3,534	414
Kentucky	2,730	6.6	22,950	8.4	8,272	3,030	360	8,188	2,999	357
Mississippi	2,235	7.9	18,175	8.1	5,919	2,648	326	5,853	2,619	322
Tennessee	3,665	6.9	31,910	8.7	11,663	3,182	366	11,404	3,112	357
West South Central	15,240	6.1	132,500	8.7	53,390	3,503	403	52,890	3,470	399
Arkansas	1,620	5.2	12,990	8.0	4,350	2,685	335	4,297	2,653	331
Louisiana	2,930	7.3	26,320	9.0	11,180	3,816	425	11,119	3,795	422
Oklahoma	2,325	6.3	19,185	8.3	7,565	3,254	394	7,530	3,239	392
Texas	8,365	6.0	74,005	8.8	30,295	3,622	409	29,944	3,580	405
Mountain	4,620	3.9	35,270	7.6	17,457	3,779	495	17,383	3,763	493
Arizona	1,290	3.7	11,655	9.0	5,749	4,456	493	5,727	4,439	491
Colorado	1,125	4.2	8,240	7.3	4,201	3,734	510	4,195	3,729	509
Idaho	415	3.9	2,320	5.6	841	2,027	363	826	1,991	356
Montana	410	4.4	2,805	6.8	1,140	2,781	407	1,126	2,747	402
Nevada	360	4.3	3,405	9.5	2,652	7,366	779	2,647	7,354	777
New Mexico	485	3.8	3,480	7.2	1,626	3,353	467	1,618	3,336	465
Utah	345	2.8	2,160	6.3	866	2,509	401	864	2,504	400
Wyoming	190	4.6	1,205	6.3	382	2,012	317	380	2,001	316
Pacific	11,720	3.4	99,200	8.5	64,166	5,475	647	63,647	5,431	642
Alaska	80	5.6	1,185	14.8	482	6,021	407	414	5,177	349
California	8,920	3.5	77,025	8.6	54,073	6,062	702	53,676	6,018	697
Hawaii	230	2.6	4,170	18.1	2,073	9,015	497	2,044	8,886	490
Oregon	1,135	3.4	7,650	6.7	3,319	2,925	434	3,313	2,919	433
Washington	1,355	2.9	9,170	6.8	4,219	3,113	460	4,199	3,099	458
All Other	1,965	3.7	17,620	9.0	4,330	2,204	246	4,290	2,183	243
Puerto Rico	1,900	6.5	16,825	8.9	4,022	2,117	239	3,983	2,096	237
Other	65	0.3	795	12.2	308	4,742	388	307	4,725	386

1/ Includes unknown residence not shown seperately.

Figure 1
Medicare: Annual Discharge Rate Per 1,000 Aged Enrollees
With Principal Diagnosis Of Diabetes, Calendar Year 1984



Source: HCFA/ORD

Table 3 - (Figure 2) Disabled beneficiaries, geographic area, 1984

- The annual discharge rate for diabetes among disabled Medicare beneficiaries varied slightly among the regions, with one major exception. The discharge rate in the West region (8.8 per 1,000 enrollees) was quite a bit lower (about 36 percent) than for the other regions (about 12.0 per 1,000 enrollees). This pattern of variation was similar to that shown for the aged.

- By State, there was significant variation in the discharge rate for disabled diabetics. The rate of hospitalization ranged from 3.3 per 1,000 enrollees in Hawaii to 20.2 per 1,000 enrollees in Vermont, a sixfold difference.

- The ALOS and average charge patterns for disabled beneficiaries with the principal diagnosis of diabetes were similar, among the regions, to that for the aged. That is, the Northeast region (12.6 days) had a much longer ALOS per discharge (31 percent) than the average for all areas (9.6 days); and, the Northeast region showed the highest average charge per discharge ($5,657), which was slightly higher than for the West region ($5,467) and approximately 51 percent higher than that for the South region ($3,754).

- By State, the ALOS and the average charge per discharge varied substantially for disabled diabetics. The ALOS per discharge ranged from 5.6 days in Colorado to 18.0 days in Alaska, a difference of 221 percent. The average charge per discharge ranged from $2,720 in Vermont to $13,753 in Alaska, a difference of 406 percent.

Table 4 - (Figures 3 and 4) Diabetes reported as a principal or secondary condition

- Diabetes is often associated with other diagnostic conditions (e.g., peripheral vascular diseases, diseases of the heart, kidney, and eye) for which beneficiaries are hospitalized under the Medicare program.

- When diabetes is measured as either a principal or a secondary diagnostic condition for aged beneficiaries discharged from short-stay hospitals, the use of inpatient services increased significantly (by a factor of about sevenfold) to 1.02 million discharges and $4.71 billion in total charges.

- Similarly, for disabled diabetics with a principal or secondary condition of diabetes, the number of discharges and total charges increased substantially (by a factor of about fivefold) to 0.17 million and $0.84 billion, respectively.

TABLE 3
Use and Cost of Short-Stay Hospital Services by Disabled Medicare Beneficiaries with the Principal Diagnosis of Diabetes: Geographic Area, 1984

Geographic Area	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
All Areas	32,100	11.1	309,195	9.6	$147,947	$4,609	$478	$144,109	$4,489	$466
United States 1/	31,690	11.4	305,825	9.7	147,100	4,642	481	143,265	4,521	468
Northeast	7,360	12.2	92,835	12.6	41,636	5,657	448	40,258	5,470	434
North Central	7,910	12.0	74,450	9.4	36,935	4,669	496	35,765	4,521	480
South	12,370	11.8	106,765	8.6	46,441	3,754	435	45,768	3,700	429
West	4,035	8.8	31,700	7.9	22,058	5,467	696	21,445	5,315	676
New England	1,700	12.3	20,360	12.0	9,555	5,621	469	9,016	5,304	443
Connecticut	395	13.0	3,655	9.3	1,685	4,267	461	1,641	4,154	449
Maine	165	10.5	2,275	13.8	1,130	6,846	497	1,127	6,829	495
Massachusetts	820	13.2	11,430	13.9	5,517	6,729	483	5,048	6,156	442
New Hampshire	100	10.5	805	8.1	307	3,066	381	306	3,061	380
Rhode Island	90	6.5	1,170	13.0	562	6,250	481	553	6,144	473
Vermont	130	20.2	1,025	7.9	354	2,720	345	342	2,627	333
Middle Atlantic	5,660	12.2	72,475	12.8	32,081	5,668	443	31,242	5,520	431
New Jersey	1,255	14.5	18,140	14.5	6,949	5,537	383	6,736	5,368	371
New York	2,285	10.3	31,685	13.9	12,690	5,554	401	12,384	5,420	391
Pennsylvania	2,120	13.5	22,650	10.7	12,442	5,869	549	12,122	5,718	535
East North Central	6,045	12.5	58,275	9.6	29,039	4,804	498	27,946	4,623	480
Illinois	1,255	11.3	11,450	9.1	6,394	5,095	558	6,337	5,050	553
Indiana	930	14.2	10,015	10.8	4,213	4,530	421	4,113	4,423	411
Michigan	1,750	14.9	15,115	8.6	8,548	4,884	566	7,737	4,421	512
Ohio	1,535	11.3	15,305	10.0	7,160	4,665	468	7,127	4,643	466
Wisconsin	575	11.2	6,390	11.1	2,725	4,739	426	2,631	4,576	412
West North Central	1,865	10.5	16,175	8.7	7,895	4,233	488	7,818	4,192	483
Iowa	295	10.2	2,700	9.2	1,152	3,905	427	1,148	3,893	425
Kansas	145	6.7	1,070	7.4	491	3,383	458	489	3,369	457
Minnesota	385	11.2	3,820	9.9	2,167	5,628	567	2,115	5,494	554
Missouri	715	10.7	5,810	8.1	2,695	3,769	464	2,683	3,752	462
Nebraska	175	12.6	1,495	8.5	709	4,050	474	708	4,044	473
North Dakota	90	15.3	655	7.3	396	4,398	604	392	4,360	599
South Dakota	60	8.8	625	10.4	286	4,774	458	284	4,725	454
South Atlantic	6,105	11.3	56,280	9.2	24,509	4,015	435	24,257	3,973	431
Delaware	90	11.8	825	9.2	270	3,000	327	268	2,980	325
Dist. of Columbia	75	10.8	730	9.7	414	5,527	568	414	5,526	568
Florida	1,520	10.6	14,515	9.5	7,886	5,188	543	7,830	5,151	539
Georgia	1,020	11.9	7,925	7.8	3,171	3,109	400	3,089	3,029	390
Maryland	545	12.9	7,675	14.1	2,644	4,851	344	2,613	4,794	340
North Carolina	960	10.6	7,770	8.1	3,044	3,171	392	3,037	3,163	391
South Carolina	610	11.9	5,160	8.5	1,952	3,200	378	1,940	3,181	376
Virginia	795	11.3	7,850	9.9	3,566	4,485	454	3,505	4,408	446
West Virginia	490	12.0	3,830	7.8	1,562	3,188	408	1,561	3,185	407

See footnote at end of table

TABLE 3 (Continued)
Use and Cost of Short-Stay Hospital Services by Disabled Medicare Beneficiaries with the Principal Diagnosis of Diabetes: Geographic Area, 1984

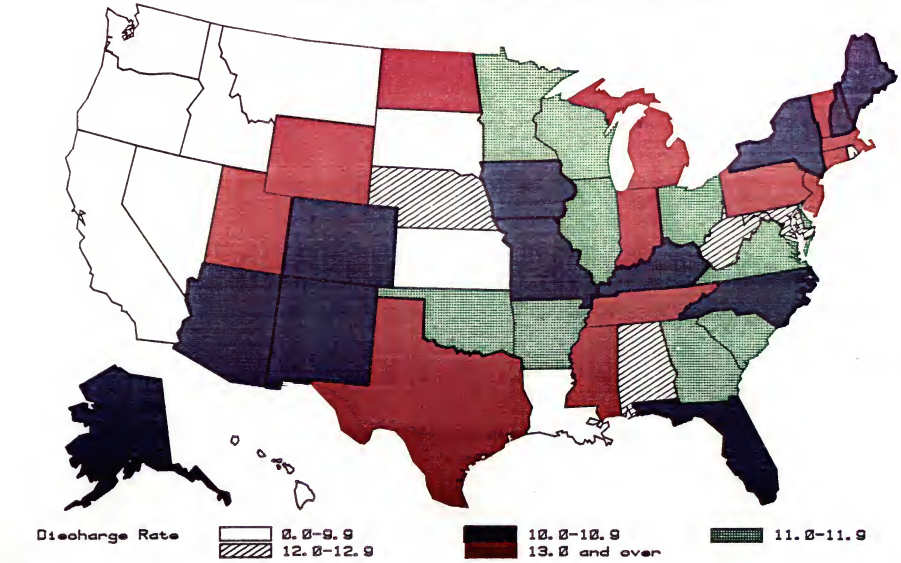
Geographic Area	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
East South Central	3,130	12.6	26,090	8.3	11,164	3,567	428	11,069	3,536	424
Alabama	815	12.8	6,050	7.4	2,785	3,417	460	2,765	3,392	457
Kentucky	635	10.0	5,345	8.4	2,341	3,687	438	2,312	3,641	433
Mississippi	645	14.1	5,515	8.6	2,092	3,243	379	2,067	3,205	375
Tennessee	1,035	13.8	9,180	8.9	3,946	3,813	430	3,925	3,793	428
West South Central	3,135	11.8	24,395	7.8	10,768	3,435	441	10,442	3,331	428
Arkansas	465	11.0	3,615	7.8	1,423	3,060	394	1,411	3,035	390
Louisiana	560	9.5	4,725	8.4	1,914	3,418	405	1,903	3,399	403
Oklahoma	385	11.0	2,825	7.3	1,339	3,479	474	1,333	3,462	472
Texas	1,725	13.3	13,230	7.7	6,091	3,531	460	5,794	3,359	438
Mountain	1,095	9.7	8,625	7.9	5,483	5,008	636	5,180	4,731	601
Arizona	350	10.1	3,835	11.0	2,633	7,522	687	2,495	7,129	651
Colorado	270	10.9	1,500	5.6	950	3,520	634	806	2,984	537
Idaho	65	7.5	460	7.1	247	3,798	537	247	3,792	536
Montana	45	5.2	320	7.1	148	3,287	462	138	3,063	431
Nevada	50	5.6	295	5.9	210	4,192	710	209	4,172	707
New Mexico	155	10.4	1,040	6.7	755	4,874	726	754	4,864	725
Utah	120	13.6	850	7.1	386	3,219	454	379	3,155	445
Wyoming	40	13.9	325	8.1	154	3,848	474	154	3,848	474
Pacific	2,940	8.4	23,075	7.8	16,575	5,638	718	16,265	5,532	705
Alaska	20	10.5	360	18.0	275	13,753	764	274	13,724	762
California	2,375	8.9	18,880	7.9	14,287	6,016	757	14,065	5,922	745
Hawaii	25	3.3	190	7.6	113	4,537	597	112	4,495	591
Oregon	165	5.6	1,055	6.4	585	3,425	536	564	3,421	535
Washington	355	8.4	2,590	7.3	1,334	3,757	515	1,248	3,516	482
All Other	410	3.9	3,370	8.2	847	2,067	251	844	2,058	250
Puerto Rico	405	4.5	3,335	8.2	833	2,056	250	829	2,047	249
Other	5	0.3	35	7.0	15	2,917	417	15	2,917	417

1/ Includes unknown residence not shown seperately.

Figure 2

Medicare: Annual Discharge Rate Per 1,000 Disabled Enrollees

With Principal Diagnosis Of Diabetes, Calendar Year 1984



Source: HCFA/ORD

TABLE 4

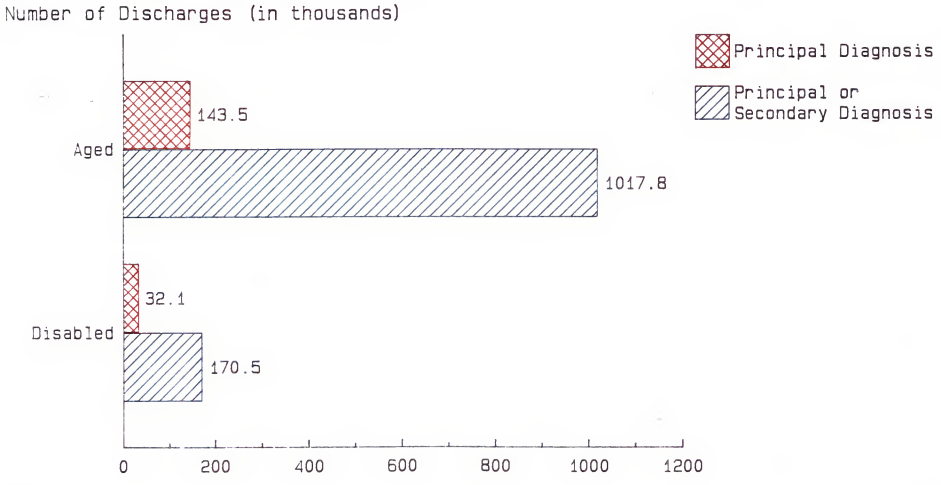
Use and Cost of Short-Stay Hospital Services by Medicare Beneficiaries with the Principal or Secondary Diagnosis of Diabetes: Demographic Characteristics, 1984

Demographic Characteristic	Discharges		Total Days of Care		Total Charges			Covered Charges		
	Number	Rate per 1,000 Enrollees	Number	Per Discharge	Amount in Thousands	Per Discharge	Per Day	Amount in Thousands	Per Discharge	Per Day
Aged beneficiaries										
Total	1,017,795	37.5	9,147,900	9.0	$4,706,122	$4,624	$514	$4,659,261	$4,578	$509
Age										
65-69	270,950	31.3	2,351,090	8.7	1,284,232	4,740	546	1,270,971	4,691	541
70-74	277,275	38.8	2,470,930	8.9	1,303,819	4,702	528	1,291,855	4,659	523
75-79	225,940	43.5	2,051,705	9.1	1,038,262	4,595	506	1,028,705	4,553	501
80-84	146,745	43.9	1,356,660	9.2	654,516	4,460	482	647,514	4,413	477
85 or Over	96,925	35.0	917,805	9.5	425,477	4,390	464	420,361	4,337	458
Sex										
Males	388,480	35.6	3,439,860	8.9	1,887,514	4,859	549	1,869,294	4,812	543
Females	629,315	38.9	5,708,040	9.1	2,818,608	4,479	494	2,789,967	4,433	489
Race 1/										
White	859,370	35.9	7,619,355	8.9	3,890,100	4,527	511	3,851,041	4,481	505
All Other	127,485	53.7	1,245,065	9.8	668,737	5,246	537	662,253	5,195	532
Disabled beneficiaries										
Total	170,495	59.1	1,484,555	8.7	$844,855	$4,955	$569	$834,247	$4,893	$562
Age										
Under 35	10,975	28.3	87,795	8.0	62,721	5,715	714	60,976	5,556	695
35-44	17,285	40.9	152,365	8.8	92,162	5,332	605	90,383	5,229	593
45-54	34,400	58.9	292,250	8.5	165,472	4,810	566	164,057	4,769	561
55-59	41,240	70.9	361,125	8.8	202,685	4,915	561	200,240	4,855	554
60-64	66,555	73.3	590,730	8.9	321,631	4,833	544	318,446	4,785	539
Sex										
Males	91,115	49.8	776,050	8.5	459,114	5,039	592	453,683	4,979	585
Females	79,380	75.3	708,505	8.9	385,741	4,859	544	380,565	4,794	537
Race 1/										
White	129,765	55.8	1,111,455	8.6	631,289	4,865	568	622,704	4,799	560
All Other	37,390	74.5	342,590	9.2	196,827	5,264	575	195,072	5,217	569

1/ Excludes unknown race.

Figure 3

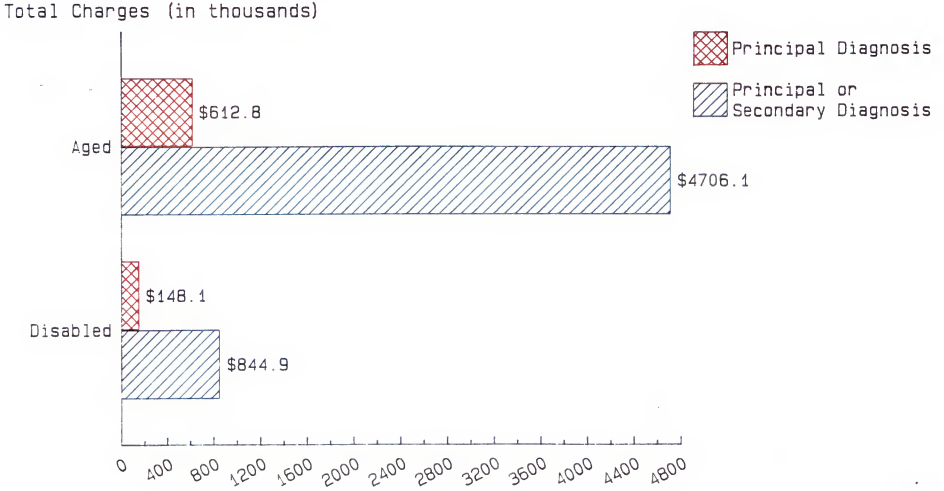
Use of Short-Stay Hospital Services by Medicare Beneficiaries with the Principal or Secondary Diagnosis of Diabetes, 1984



Source: HCFA/ORD

Figure 4

Charges for Short-Stay Hospital Services by Medicare Beneficiaries with the Principal or Secondary Diagnosis of Diabetes, 1984



Source: HCFA/ORD

Sources and Limitations of Data

The data shown in this Brief were derived from the Health Care Financing Administration (HCFA) short-stay hospital inpatient stay record file. This file is generated by linking information from three HCFA master program files for a 20-percent sample of Medicare beneficiaries. The statistical stay record, thereby, provides information on the patient, the hospital, and the hospitalization. Therefore, the data are subject to sampling variability. Sample counts were multiplied by a factor of 5 fold to estimate population totals.

The data represent those inpatient records received and processed in HCFA as of December 1985. Discharges for 1984 recorded after that date were not included. Therefore, a complete count of all Medicare discharges during 1984 will probably total about 2 percent more than for the figures used in this study.

Definition of Terms

Short-stay hospitals: General and special hospitals that are certified as participating facilities under Medicare and reporting average stays of less than 30 days.

Discharge: The formal release of an inpatient from a hospital. All discharges also include those persons who died during their hospitalization.

Hospital charges: The hospital's charges for room, board, and ancillary services as recorded on the billing form (HCFA 1450).

Annual rates per 1,000 enrollees: A ratio of the total number of discharges or days of care (multiplied by 1,000) to the number of persons entitled to benefits as of July 1 of that year.

Day of care: A day during which inpatient hospital services were furnished to a person eligible for hospital insurance (HI) benefits under Medicare. The day of discharge is not counted as a day of care.

Covered day of care: A day of inpatient hospital care during which services furnished to a person eligible for HI benefits are deemed to be covered under the Medicare program.

Diabetes Mellitus: Identified as ICD-9-CM code 250 by the International Classification of Diseases, 9th Revision, Clinical Modification.

Recent releases

The following Health Care Financing Research Briefs were recently disseminated and are available upon request from the Office of Research and Demonstrations, Office of Research, Division of Program Studies, Information Services Branch:

- No. 85-1 Medicare: Inpatient Use of Short-Stay Hospitals, 1983
- No. 85-2 Hospital Outpatient Services Under Medicare: Trends and Demographic Variations, 1983
- No. 85-3 Medicare: Use and Charges for Inpatient Services in Short-Stay Hospitals, by Diagnosis-Related Groups, Calendar Years 1981 and 1984
- No. 85-4 Medicare: Surgical Procedures in Short-Stay Hospitals, by Census Region, 1983
- No. 86-1 Medicare: Use and Cost of Home Health Agency Services, 1983
- No. 86-2 Medicare: Participating Providers and Suppliers of Health Services, December 1985
- No. 86-3 Raising the Age of Eligibility for Medicare to Age 67
- No. 86-4 Medicare: Use of Skilled Nursing Facilities, 1984

CHS LIBRARY
3 8095 00013462 3